

METHODS AND COMPOSITIONS FOR ANALYZING *AHASL* GENES

ABSTRACT OF THE DISCLOSURE

The invention relates to methods and compositions for analyzing plant acetohydroxy acid synthase large subunit (*AHASL*) genes. In particular, the invention relates to methods for the detection of wild-type *AHASL* alleles and mutant *AHASL* alleles that encode imidazolinone-tolerant AHASL proteins. The methods involve the use of PCR amplification and novel compositions comprising allele-specific and gene-specific primers to detect the presence of mutant and/or wild-type alleles present at the individual *AHASL* genes of a plant. Specifically, the methods and compositions are useful for analyzing the three *AHASL* genes of *Triticum aestivum* and the two *AHASL* genes of *Triticum turgidum ssp. durum*.